

10/538,904

***** STN Columbus *****

FILE 'HOME' ENTERED AT 16:10:43 ON 19 JAN 2008

=> file biosis medline caplus wpids uspatfull
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FULL ESTIMATED COST

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*** YOU HAVE NEW MAIL ***

=> s fluorination (4a) cytosine
L1 29 FLUORINATION (4A) CYTOSINE=> s l1 and solid support
L2 2 L1 AND SOLID SUPPORT=> s l2 and 18F
L3 2 L2 AND 18F=> dup rem l3
PROCESSING COMPLETED FOR L3
L4 2 DUP REM L3 (0 DUPLICATES REMOVED)

=> d l4 bib abs 1-2

L4 ANSWER 1 OF 2 USPATFULL on STN
 AN 2006:143445 USPATFULL
 TI Solid-phase fluorination of uracil and cytosine
 IN Brady, Frank, HAMMERSMITH IMANET LIMITED, CYCLOTRON BUILDING,
 HAMMERSMITH HOSPITAL, DUCANE ROAD, LONDON, UNITED KINGDOM, W12 0NN
 Luthra, Saijnder Kaur, London, UNITED KINGDOM
 Robins, Edward George, London, UNITED KINGDOM
 PI US 2006120958 A1 20060608
 AI US 2003-538904 A1 20031219 (10)
 WO 2003-GB5577 20031219
 20050614 PCT 371 date
 PRAI GB 2002-29683 20021220
 DT Utility
 FS APPLICATION
 LREP GE HEALTHCARE, INC., IP DEPARTMENT, 101 CARNEGIE CENTER, PRINCETON, NJ,
 08540-6231, US
 CLMN Number of Claims: 12
 ECL Exemplary Claim: 1
 DRWN No Drawings
 LN.CNT 511
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 AB The invention relates to a process for the production of an .sup.

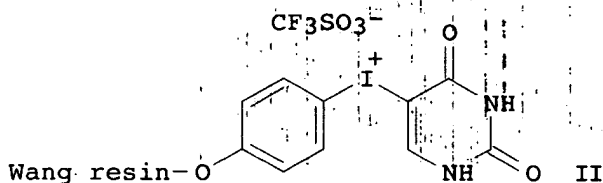
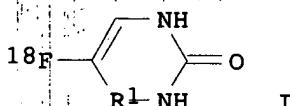
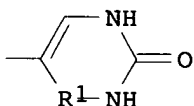
¹⁸F-labelled tracer which comprises treatment of a solid support-bound precursor of formula (I): SOLID SUPPORT-LINKER-I.sup.-+TRACER (I) Y.sup.- wherein the TRACER is of formula (A): or an amine protected derivative thereof, wherein Y.sup.- is an anion, preferably trifluoromethylsulphonate (triflate) anion; and R.sup.1 is either (i) a group CH--NP.sup.1AP.sup.2A in which P.sup.1A and P.sup.2A are each independently hydrogen or a protecting group, or (ii) a carbonyl group; with ¹⁸F.sup.- to produce the labelled tracer of formula (II) or an amine protected derivative thereof, wherein R.sup.1 is as defined for the compound of formula (I). ##STR1##

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2004:546427 CAPLUS
 DN 141:106482
 TI Solid-phase fluorination of uracil and cytosine
 IN Brady, Frank; Luthra, Sajinder Kaur; Robins, Edward George
 PA Hammersmith Imanet Limited, UK
 SO PCT Int. Appl., 30 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2004056400	A1	20040708	WO 2003-GB5577	20031219
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2003290297	A1	20040714	AU 2003-290297	20031219
EP 1572249	A1	20050914	EP 2003-782657	20031219
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
JP 2006510707	T	20060330	JP 2004-561655	20031219
US 2006120958	A1	20060608	US 2005-538904	20050614
PRAI GB 2002-29683	A	20021220		
WO 2003-GB5577	W	20031219		
OS MARPAT 141:106482				
GI				

Q=



AB The invention relates to a process for the production of an ^{18}F -labeled tracer which comprises treatment of a solid support-bound precursor of formula SOLID SUPPORT- $\text{LINKER-I}^+-\text{TRACER.Y}^-$ [wherein the TRACER is formula Q or an amine protected derivative thereof; wherein Y^- = an anion, preferably trifluoromethylsulfonate (triflate) anion; R_1 = either (i) a group CH-NP1AP2A in which P1A and P2A are each independently hydrogen or a protecting group, or (ii) a carbonyl group] with $^{18}\text{F}^-$ to produce the ^{18}F -labeled tracer of formula (I) or an amine protected derivative thereof (wherein R_1 is as defined above). The ^{18}F -labeled tracers I are useful as radiotracers for positron emission tomog. (PET). Thus, etherification of 4-iodophenol with Wang resin in DMF in the presence of Cs_2CO_3 at 60° for 3 h gave 4-iodophenyl benzyl ether supported on Wang resin which was treated with Ac_2O and H_2O_2 at 40° overnight to give 4-(diacetoxyiodo)phenyl benzyl ether supported on Wang resin. A suspension of the latter resin in CH_2Cl_2 was treated dropwise with $\text{CF}_3\text{SO}_3\text{H}$ at -30° over 15 min, warmed to 0° over 15 min, and stirred at room temperature overnight, cooled to -30° , treated with 5-(dihydroxyboranyl)-1H-pyrimidine-2,4-dione, and stirred at -30° for 1 h and at room temperature overnight to give a resin-supported precursor (II). To a portion of the resin II held in a cartridge was added a solution of kryptofix, K_2CO_3 , and ^{18}F fluoride and the resulting suspension was heated to 85° for 10 min to give 5- ^{18}F -fluorouracil.

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

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(FILE 'HOME' ENTERED AT 16:10:43 ON 19 JAN 2008)

FILE 'BIOSIS, MEDLINE, CAPLUS, WPIDS, USPATFULL' ENTERED AT 16:11:28 ON 19 JAN 2008

L1 29 S FLUORINATION (4A) CYTOSINE
 L2 2 S L1 AND SOLID SUPPORT
 L3 2 S L2 AND 18F
 L4 2 DUP REM L3 (0 DUPLICATES REMOVED)

=> s fluorination and tracers
 L5 100 FLUORINATION AND TRACERS

=> s 15 not 14
 L6 98 L5 NOT L4

=> s 16 and 18F
 L7 69 L6 AND 18F

=> s 17 and solid support
 L8 17 L7 AND SOLID SUPPORT

=> dup rem 18
 PROCESSING COMPLETED FOR L8
 L9 16 DUP REM L8 (1 DUPLICATE REMOVED)

=> s 19 and (cytosine or uracil)
 L10 1 L9 AND (CYTOSINE OR URACIL)

=> d 110 bib abs

L10 ANSWER 1 OF 1 USPATFULL on STN
 AN 2006:340280 USPATFULL
 TI Radical trap in fluoridation of iodonium salt
 IN Wadsworth, Harry John, Buckinghamshire, UNITED KINGDOM
 Widdowson, David Arthur, London, UNITED KINGDOM
 Wilson, Emmanuelle, London, UNITED KINGDOM
 Carroll, Michael Andrew, Tyne, UNITED KINGDOM
 PI US 2006292060 A1 20061228
 AI US 2004-559879 A1 20041217 (10)
 WO 2004-GB5304 20041217
 20060830 PCT 371 date
 PRAI GB 2003-29716 20031223
 DT Utility
 FS APPLICATION
 LREP GE HEALTHCARE, INC., IP DEPARTMENT, 101 CARNEGIE CENTER, PRINCETON, NJ,
 08540-6231, US
 CLMN Number of Claims: 17
 ECL Exemplary Claim: 1
 DRWN No Drawings
 LN.CNT 733

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Decomposition of iodonium salts by a free radical process has been identified as a significant factor in the observed yield variability of fluoridation reactions using said iodonium salts. Accordingly, the inclusion of a free radical trap in the reaction mixture blocks the radical chain decomposition pathway for iodonium salts such that only the reaction leading to fluoridation can occur and the yield of aryl fluoride becomes high and reproducible. The reaction may also be carried out on solid phase. In both the solution and the solid phase the preferred method of the present invention is radiofluoridation.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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